IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of		Before the Board of Appeals	
Russell M. HAGEN et al.		Appeal No.:	
Appl. No.:	09/985,679	Group:	1617
Filed:	November 5, 20001	Examiner:	R. S. TRAVERS
Conf.:	4024		
For:	NOVEL MEDICAL USE FOR TACHYKININ ANTAGONISTS		

BRIEF ON APPEAL

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APPELLANT'S BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 18, 2004

Sir:

Pursuant to 37 C.F.R. § 1.192, the present Appellant's Brief is respectfully submitted in connection with the above-identified application.

(I) REAL PARTY IN INTEREST

The Real Party in Interest is Glaxo Group Limited of Glaxo House, evidenced by the assignment filed on November 6, 1992, and recorded on the same date at Reel 6319 and Frame 0104, Berkeley Avenue, Greenford, Middlesex, UB6 ONN, Great Britain. SmithKline Beecham of One Franklin Plaza, Philadelphia, PA, which is doing business as GlaxoSmithKline, is a related company and also has rights in the invention.

Since one purpose for identifying the real party in interest is to allow the Administrative Patent Judges to determine if they should recuse themselves because of conflict issues, it should be noted that

the invention claimed in the present application is similar to the invention claimed in U.S. Patent 5,576,317 ("the '317 patent"), assigned to Pfizer. Appellants are attempting to institute an interference with Pfizer with respect to the '317 patent. Claims that define the same patentable invention as the claims of the '317 patent were presented prior to one year after issuance of the '317 patent, as explained in parent Application No. 08/706,836. A cursory review of the claims of the '317 patent will reveal that the United States Patent and Trademark Office has already issued claims similar to those under consideration in this appeal.

(II) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

However, parent Application No. 08/706,836 was referred by the Examiner to the Board of Patent Appeals and Interferences for institution of an interference with the '317 patent (see Ex. 1). Administrative Patent Judge Sally Gardner-Lane declined to declare an interference because the Examiner had not adequately explained why the allowed claims defined the same patentable invention as the claims in the '317 patent (see paragraph bridging pages 1 and 2 of Ex. 2). Rather than attempting to explain why an interference was proper, the Examiner merely issued a Notice of Allowance. The Issue Fee was paid and the application eventually issued as U.S. Patent 6,326,383 B1 ("the '383 patent"). The present application was filed in a continuation of Applicants' attempt to institute an interference with the '317 patent.

(III) STATUS OF THE CLAIMS

Claims 1-25 are pending in the application and stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement and under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness, as set forth in the Final Office Action of April 21, 2004. There are no pending rejections over prior art.

(IV) STATUS OF THE AMENDMENTS

The claims of the present application are as originally filed, having never been amended.

(V) SUMMARY OF THE INVENTION

In one aspect, the present invention is based on the fundamental discovery that tachykinin antagonists acting at the NK_1 receptor can be used in the treatment of emesis (vomiting) (p. 1, lines 12-14 and p. 2, lines 23-24). At the time of the filing of the present application, numerous tachykinin antagonists were known in the art. However, it was not recognized that these compounds were useful for treating emesis. Tachykinin antagonists are described in the specification at pages 1-19 and at page 22, lines 12-14. Routes of administration and dosages are described on pages 19-21. Grandparent Application No. 08/269,079 has issued as U.S. Patent 5,538,982 (already of record). Claim 1 of this patent reads as follows:

> 1. A method for the treatment of a mammal, suffering from or susceptible to emesis, comprising administration of an effective amount of a tachykinin antagonist which is an [NK_1] receptor antagonist.

The claims in the present application are narrower than those already granted in the '982 patent in the sense that they require the use of a second active ingredient in addition to the NK_1 antagonist.

In describing the invention, Applicants stated that the tachykinin antagonists acting at the NK_1 receptor could be administered in combination with a systemic anti-inflammatory corticosteroid or a $5HT_3$ antagonist (previously known as serotonin M antagonists), such as ondansetron, granisetron and metoclopramide (page 28, lines 18-25).

The claims on appeal relate to a method for the treatment of a mammal, suffering from or susceptible to emesis, comprising administration of an effective amount of a tachykinin antagonist which is an NK_1 antagonist in combination with one or more other therapeutic agents selected from systemic anti-inflammatory corticosteroids or $5HT_3$ antagonists. (See Claim 1 and p. 22, lines 5-8 of the specification). In another embodiment, the present invention is directed to a method for the treatment of a mammal, suffering from or susceptible to emesis, comprising administration of an effective amount of a tachykinin antagonist which is an NK_1 antagonist in combination with $5HT_3$ antagonists, which are selected from ondansetron, granisetron and metoclopramide. (See Claim 3 and p. 22, lines 5-8 of the specification). The present invention is also directed to a pharmaceutical composition for the treatment or prevention of emesis comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier. (See Claim 11 and p. 22, lines 5-8 of the specification).

(VI) ISSUES FOR CONSIDERATION

The following issues are presented in this appeal:

Issues Relating to the Rejection Under 35 U.S.C. § 112,First Paragraph

1. Whether the Examiner has made a *prima facie* showing that the claims are broader than the enabling disclosure with respect to the NK_1 antagonists. This issue applies to all of the claims and will be argued separately for some of the claims. The Examiner does not question whether the specification adequately teaches how to make or use the compounds.

2. If it is determined that the Examiner made a *prima facie* showing for Issue 1, whether appellants have successfully rebutted the *prima facie* showing.

3. Whether the Examiner has made a *prima facie* showing that the claims are broader than the enabling disclosure with respect to the $5HT_3$ antagonists. This issue applies to all of the claims and will be argued separately for some of the claims. The Examiner does not raise the issue with respect to the claimed anti-inflammatory corticosteroids and does not question whether the specification adequately teaches how to make or use either the anti-inflammatory corticosteroids or the $5HT_3$ antagonists.

4. If it is determined that the Examiner made a *prima facie* showing for Issue 3, whether appellants have successfully rebutted the *prima facie* showing.

Issues Relating to the Rejection Under 35 U.S.C. § 112, Second Paragraph

5. Whether one skilled in the art would understand the metes and bounds of the claim term "NK_1 antagonist."

6. Whether one skilled in the art would understand the metes and bounds of the term "$5HT_3$ antagonists."

(VII) GROUPING OF THE CLAIMS

For each of the rejections, the claims are grouped into the following three groups:

Group 1: Claims 1, 2, 4-9, 11, 14, 16 and 20-25.

Group 2: Claims 3, 12, 15 and 19.

Group 3: Claims 10, 13, 17 and 18.

The claims of Group 1 include within their scope (1) any tachykinin antagonist which is an NK_1 antagonist and (2) any $5HT_3$ antagonist and/or any systemic anti-inflammatory corticosteroid. Each of the compounds (1) and (2) have the ability to treat emesis. Groups 2 and 3 more specifically define either the $5HT_3$ antagonist (Group 2) or the NK_1 receptor antagonist (Group 3). For example, the $5HT_3$ antagonist is limited to ondansetron, granisetron or metoclopramide for Group 2. The NK_1 receptor antagonist is limited to formulas A-G or specific species thereof for Group 3. The arguments for Group 1 also apply to Groups 2 and 3. However, since the claims of Groups 2 and 3 are narrower in some respects than the claims of Group 1, the claims of Groups 2 and 3 do not stand or fall together with the claims of Group 1.

(VIII) ARGUMENT

The following arguments are submitted with respect to the Issues identified above.

Issue 1 - NK_1 antagonists - *Prima Facie* Case of Non-enablement

Group 1 Claims

The claims of Group 1 encompass all NK_1 antagonists which are useful in treating emesis. The Examiner appears to be concerned that Appellants' inclusion of all NK_1 antagonists in the claims is too broad because it uses functional language. However, the Examiner has not cited any prior art that would require narrowing the scope of Appellant's invention, and the use of functional language is completely acceptable. See In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971) and MPEP § 2173.05(g).

Appellants submit that the Examiner has failed to meet his burden of presenting a *prima facie* case of lack of enablement in the Final Office Action dated April 21, 2004. Pursuant to In re Wright, 999 F.2d 1557, 27 USPQ2d 1510 (Fed. Cir. 1993), citing In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971), the PTO bears the initial burden of setting forth a reasonable explanation as to why it believes that the scope of the claim is not adequately enabled by the specification.

> As a matter of Patent Office practice, then, a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as in compliance with the enabling requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. 439 F.2d at 223, 169 USPQ at 369.

> [I]t is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. 439 F. 2d at 224, 169 USPQ at 370.

In the Final Office Action of April 21, 2004, the Examiner fails to provide any reasons or supporting evidence for his position that the NK_1 antagonist cannot be broadly defined. The Examiner's comments are not even directed to the specific invention being claimed and the specific technology at issue. The Examiner merely lists the eight Wands factors, (In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)), and makes conclusory statements that the claims are not enabled. The Examiner fails to engage in any Wands-type analysis of the disclosure in the specification or the state of the art as is required to determine if one of ordinary skill in the art would have to engage in undue experimentation to practice the invention.

The Examiner fails to even mention the nature of the invention, the state of the prior art, the level of skill for one of ordinary skill in the art, the amount of direction actually provided in the application and that already known in the art and the quantity of experimentation. At most, the Examiner superficially addresses three of the eight Wands factors: the breadth of the claims, the level of predictability in the art and working examples. For the foregoing reasons, the Examiner has not established a *prima facie* case that the NK_1 antagonists are defined in a manner that is broader than the supporting disclosure.

Group 2 Claims

The claims of Group 2 on appeal (claims 3, 12, 15 and 19) are directed to: 1) a method for the treatment of a mammal suffering from

or susceptible to emesis comprising administration of an effective amount of a tachykinin antagonist, which is an NK_1 antagonist, in combination with one or more other therapeutic agent0s selected from systemic anti-inflammatory corticosteroids or $5HT_3$ antagonists such as ondansetron, granisetron or metoclopramide; and 2) a pharmaceutical composition comprising a $5HT_3$ receptor antagonist such as ondansetron, granisetron or metoclopramide, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier.

For the same reasons set forth above with respect to the claims of Group 1, it is respectfully submitted that the Office Action fails to establish a *prima facie* case of lack of enablement for the claims of Group 2. Since the Group 2 claims do not further define the NK_1 antagonist, these claims are not argued separately as to this specific issue. However, the Group 2 claims will be argued separately as to other issues.

Group 3 Claims

The claims of Group 3 (see Claim 10, for example) further define the NK_1 antagonist in terms of its chemical structure. Thus, these claims not only define the NK_1 antagonist functionally; they also provide structural limitations on the NK_1 antagonists. Therefore, these claims do not present the same "functional language" issue alleged by the Examiner.

Issue 2 - NK_1 Antagonists - Appellants have Rebutted the Rejection for Lack of Enablement

Even assuming that the Board finds that the Examiner has properly established a *prima facie* case of lack of enablement for the full scope of the claims, Appellants submit that evidence of record,

including Appellant's specification and various journal articles evidencing the state of the art at the time of filing, overcomes the *prima facie* case.

Group 1 Claims

A. The Wands Factors

The test for enablement is whether one of ordinary skill in the art would have to engage in undue experimentation to practice the invention. In re Wands, *supra.* In Wands, the Federal Circuit found that the claims were enabled even where one of ordinary skill in the art would have to engage in production and screening of numerous hybridomas secreting monoclonal antibodies to practice the invention. 858 F.2d at 740, 8 USPQ2d at 1406. The factors for analysis are addressed individually below:

1. Breadth of the Claims

The claims of Group 1 are directed to a method for the treatment of emesis with any NK_1 antagonist. The NK_1 antagonist is used in combination with any $5HT_3$ antagonist. Appellants respectfully submit that the breadth of the claims is appropriate given the scope of Appellants' invention and the fact that the Examiner has not rejected the claims over the prior art.

2. Nature of the Invention

The nature of the invention of Group 1 is a method of treatment and a pharmaceutical composition for use in that method of treatment. The claimed method of treatment does not involve a highly unpredictable technology, such as gene therapy. A combination of known pharmaceutical compounds can be used in the claimed invention.

The invention is based on the discovery of a nexus between NK_1 antagonist activity and the treatment of emesis. The modes of administration and dosage are common and predictable in the field.

3. State of the Prior Art

At the time the present invention was made, various drugs useful for treating emesis were known in the art. Several of these drugs are mentioned in the specification. (See page 28, lines 18-25).

The present invention is based on the fundamental discovery that tachykinin antagonists acting at the NK_1 receptor are useful in the treatment of emesis (page 1, lines 12-14 and page 2, lines 23-24). At the time of the filing of the present application, numerous tachykinin antagonists were known in the art. These tachykinin antagonists are described in the specification at pages 1-19 and at page 22, lines 12-14. Preferred tachykinin antagonists are identified at page 19, lines 13-17. Routes of administration and dosages are described on pages 19-21.

The present invention uses known compounds (e.g., $5HT_3$ antagonists) for their known use (treating emesis) together with a second compound (an NK_1 antagonist) for a new and unexpected use (treatment of emesis). If the claims in the Wands case were enabled, then the claims in the present application are certainly enabled. Since both active ingredients of the invention can be known compounds, one of which is being used for its known use, the claimed invention is certainly enabled.

4. The relative skill of those in the art

Appellants submit that the level of skill for practicing the present invention is high. A study investigator seeking to develop a

new drug or method for treating emesis would likely have at least a Doctorate of Philosophy in the pharmaceutical sciences. However, the assays for determining if a tachykinin is a NK_1 antagonist would likely be conducted by one of moderate skill in the art, such as a laboratory technician with at least a Bachelor of Science degree, particularly since the screening assays are routine assays that require little expertise.

5. The predictability or unpredictability of the art

The Examiner states "[t]he pharmaceutical art is unpredictable" without offering any explanation as to why the specific pharmaceutical field to which the present invention is directed is unpredictable. (Final Rejection, page 3).

Some unpredictability is allowable. In Wands, the court recognized that the method for screening monoclonal antibodies was well known in 1980. 858 F.2d at 736, 8 USPQ2d at 1404. One could not predict whether a particular antibody was suitable without first testing the antibody. Likewise, methods for screening for NK_1 receptor antagonists were well known well before the earliest priority date of 1991. An animal model for determining if a compound is suitable for treating emesis was also known and is described in the specification (see page 37). Clearly this rises at least to the level of predictability found acceptable by the Wands court.

6. The amount of direction or guidance provided in the application

The present specification discloses numerous NK_1 receptor antagonists by chemical name, structure and function. The specification discloses that the combination of an NK_1 antagonist and

a $5HT_3$ antagonist is useful in a method of treating a mammal suffering from or susceptible to emesis.

Numerous compounds are identified as NK_1 receptor antagonists at pages 1-19 and at page 22, lines 12-14 of the specification. Suitable compounds are also described in various patents that are mentioned in the specification. Two methods for determining if compounds are NK_1 receptor antagonists are disclosed at page 25, lines 16-23 of the specification. (See Dam et al., Peptides (7) 855-64 (1986); Brown et al., Tachykinin Antagonists 305-12 (R. Hakanson & F. Sundler eds., 1985). Finally, an animal model for assessing whether a compound is useful in treating emesis is described in the specification at page 37 under "Biological Data".

7. The quantity of experimentation

No undue experimentation is needed to determine if a compound is an NK_1 antagonist and if it has activity in treating emesis. Such experiments are not unusual to the artisan of ordinary skill in the pharmaceutical arts. "Time and difficulty of experiments are not determinative if they are merely routine", MPEP § 2164.06, pages 2100-186 (Feb. 2003), citing In re Wands, *supra*. Such experimentation is expected in the art. Experimentation one expects to have to perform is not undue. Ex parte Mark, 1989 Pat. App. LEXIS 12, 12 USPQ2d 1904 (Bd. Pat. App. & Int. 1989).

8. The presence or absence of working examples

The specification discloses an example (beginning on page 37 of the specification) wherein the NK_1 antagonist compound cis-3-(2-methoxybenxylamino)-2-phenyl piperidine was shown to have anti-emetic activity in the ferret animal model. This compound exhibited anti-

emetic activity for emesis induced by a number of different drugs, at a number of different doses, and by several different routes of administration.

Although the specification does not describe an experiment where an NK_1 antagonist and a $5HT_3$ antagonist are both used in animal model, such an experiment is unnecessary, especially since $5HT_3$ antagonists were already known to be useful in treating emesis in humans. No working examples are necessary if the invention is otherwise disclosed in a manner such that one skilled in the art can practice the invention without undue experimentation, In re Borkowski, 442 F.2d 904, 908, 164 USPQ 642, 645 (CCPA 1970).

The Examiner's so-called analysis of the specification for the absence or presence of working examples is misdirected. The Examiner fails to acknowledge the many exemplified NK_1 and $5HT_3$ antagonists in the specification. The Examiner states that there are only a limited number of examples of the NK_1 antagonist and the $5HT_3$ antagonist and no "working example."

Appellants respectfully disagree with the Examiner's assertion. NK_1 antagonist compounds are disclosed in the specification by chemical structure and function, with reference to numerous prior art patents. This is certainly not a "limited number" of compounds. Likewise, the specification discloses $5HT_3$ antagonists generally and three specific $5HT_3$ antagonists that were already known to be useful in treating emesis in humans. The Examiner fails to offer any reasons why this disclosure of numerous compounds is not sufficient to enable the claims.

The Examiner seems to be requiring a "special type" of working examples, examples where numerous embodiments within the scope of the

claims are assessed for physiological activity. Appellants respectfully submit that there is no legal basis for the Examiner's requirement that an applicant must provide physiological data for numerous embodiments of the invention. This requirement goes beyond that which is required by 35 USC § 112, first paragraph.

Summary of the Wands Factors

The level of ordinary skill in the art is high, the level of predictability is acceptable, and the type of experimentation to determine if a compound is an NK_1 antagonist and is useful in treating emesis is routine.

There is a reasonable correlation between the scope of the claims and the supporting disclosure, particularly in light of the fact that known compounds can be used for both the NK_1 antagonist and the $5HT_3$ antagonist. Routine screening can be employed to determine if compounds are useful in treating emesis. Thus, broad claims are supported by the disclosure.

B. Other Factors

In addition to the compounds described in the specification, additional NK_1 antagonists have been identified after the filing date which are suitable for treating emesis. The Wands case indicates that after-developed information is relevant in an enablement analysis. 858 F.2d at 739, 8 USPQ2d at 1406.

Various published articles disclose NK_1 antagonists which can be used to treat emesis. See, for example, Ward et al., J. Med. Chem., 38, 4985-4992 (1995) (which also discloses one NK1 antagonist that is not effective in treating emesis), Watson et al., "The anti-emetic effects of CP-99,994 in the ferret and the dog: role of the NK_1

receptor," British Journal of Pharmacology 115, 84-94 (1995); Gonsalves et al., "Broad spectrum antiemetic effects of CP-122,721, a tachykinin NK_1 receptor antagonist, in ferrets," European Journal of Pharmacology 305, 181-185 (1996); Gardner et al., "GR205171: A novel antagonist with high affinity for the tachykinin NK_1 receptor, and potent broad-spectrum anti-emetic activity," Regulatory Peptides 65, 45-53 (1996); Singh et al., "The tachykinin NK_1 receptor antagonist PD 154075 blocks cisplatin-induced delayed emesis in the ferret," European Journal of Pharmacology 321, 209-216 (1997); Rupniak et al., "In vitro and in vivo predictors of the anti-emetic activity of tachykinin NK_1 receptor antagonists," European Journal of Pharmacology 326, 201-209 (1997); Gardner et al., "Inhibition of anaesthetic-induced emesis by a NK_1 or 5-HT3 receptor antagonist in the house musk shrew, *Suncus murinus*," Neuropharmacology 37, 1643-1644 (1998); Tattersall et al., "The novel NK_1 receptor antagonist MK-0869 (L-754,030) and its water soluble phosphoryl prodrug, L-758,298, inhibit acute and delayed cisplatin-induced emesis in ferrets," Neuropharmacology 39, 652-663 (2000); and Tsuchiya et al., Anti-emetic activity of the novel nonpeptide tachykinin NK_1 receptor antagonist Ezlopitant (CJ-11,974) against Acute and Delayed cisplatin-induced emesis in ferret," Pharmacology 66, 144-152 (2002).

Further evidence that NK_1 and $5HT_3$ antagonists are effective in treating emesis can be found in U.S. Patent 5,576,317, assigned to Pfizer. The '317 patent is mentioned above as that with which Appellants are attempting to invoke an Interference.

The Board's attention is also directed to the fact that the NK_1 antagonist aprepitant (Registered trademark of Merck & Co., EMEND) has been approved by the FDA for treatment of emesis (see the PDR entry

for EMEND®, PDR Electronic Library, website last visited August 11, 2004). Reference is also made to the following four patents, which are listed in the FDA's Orange Book for APREPITANT: U.S. Patents 5,538,982; 5,719,147; 6,048,859; 6,096,742; and 6,235,735 B1 (see, Ctr. for Drug Evaluation and Research, Food and Drug Admin., Electronic Orange Book (24th ed. Cum. Supp. 6 June 2004) at http://www.fda.gov/cder/ob/, query "Aprepitant"). It should be noted that one of the listed patents (U.S. Patent 5,538,982) is based on the grandparent application of the present application. This patent has been licensed to Merck as evidenced by its listing in the Orange Book.

In summary, although all NK_1 antagonists may not be useful for treating emesis, inactive NK_1 antagonists can be identified by routine screening in the same manner that inactive monoclonal antibodies could be screened in the Wands case.

C. Functional Language

Aside from the Wands factors, the Examiner places emphasis on "functional language," as if there is a *per se* rule against describing a compound using functional language. The Examiner has pointed to no specific rule prohibiting functional language. However, the Examiner does cite General Electric Co. v. Wabash Appliance Corp., 304 U.S. 364, 37 USPQ 466 (1938). The General Electric case involved a prior version of the patent laws. The General Electric case is not an enablement case. In fact, the Court in General Electric assumed that the disclosure taught how to make and how to use the invention. General Electric v. Wabash, 304 U.S. at 368, 37 USPQ at 468. The court was concerned that "Pacz did not adequately set out 'what he claims to be new.'" 304 U.S. at 370.

The Examiner also cites Regents of Univ. of Cal. v. Eli Lilly & Co., 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997), for the proposition that a compound cannot be described by functional language. Lilly is not an enablement case; Lilly is a written description case. In contrast to the situation in Lilly, the present application has ample description of NK_1 antagonists by structure, chemical name and function and $5HT_3$ antagonists by chemical name and function.

Group 2 Claims

As discussed above, Appellants have established that the specification is enabling for the genus of NK_1 compounds. The claims of Group 2 indicate that the $5HT_3$ antagonist is one of a short list of known compounds that were known to be useful in treating emesis prior to the application filing date. The specification describes that the three compounds, ondanestron, granisetron and metoclopramide are effective in the treatment of emesis when used in combination with an NK_1 antagonist. The effectiveness of the three $5HT_3$ antagonists was known in the art prior to filing the original priority applications. The Examiner has provided no explanation as to why the invention would not work when an NK_1 antagonist is also included in the composition.

Group 3 Claims

The claims of Group 3 are directed to: 1) a method for the treatment of a mammal suffering from or susceptible to emesis comprising administration of an effective amount of a tachykinin antagonist, which is an NK_1 antagonist of formula A, B, C, D, E, F or G, in combination with one or more other therapeutic agents selected from systemic anti-inflammatory corticosteroids or $5HT_3$ antagonists;

and 2) a pharmaceutical composition comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist which is selected from the group consisting of cis-3-(2-methoxybenzyl)amino-2-phenylpiperidine, cis-3-[(2-methoxyphenyl)methylamino]-2-benzhydryl-quinuclidine, cis-3-[(2-methoxybenzyl)amino]-2-diphenylmethyl-1-azabicyclo[2.2.2]octane and (exo,exo)-2-diphenylmethyl)-N-[5-fluoro-2-methoxyphenyl)methyl]-1-azabicyclo[2.2.1] heptan-3-amine, and a pharmaceutically acceptable carrier. These claims are limited to NK_1 antagonists that are defined by structure or chemical name, and function. The Examiner has provided no explanation as to why the invention would not work with the NK_1 antagonists recited in the claims of Group 3.

Issue 3 - $5HT_3$ Antagonists - *Prima Facie* Case of Non-enablement

Group 1 Claims

The claims of Group 1 encompass any $5HT_3$ antagonist. The Examiner appears to be concerned that Appellants' inclusion of any $5HT_3$ antagonist in the claims is too broad because it uses functional language. As discussed above, the use of functional language is completely acceptable.

The Examiner has failed to meet his burden of presenting a *prima facie* case of lack of enablement. The PTO bears the initial burden of setting forth a reasonable explanation as to why it believes that the scope of the claim is not adequately enabled by the specification.

The Examiner merely lists the eight Wands factors, (In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)), and makes conclusory statements that the claims are not enabled. The Examiner fails to engage in any Wands-type analysis directed to the specific facts of this case and does not discuss all of the Wands factors to

determine if one of ordinary skill in the art would have to engage in undue experimentation to practice the invention.

The Examiner fails to even mention the nature of the invention, the state of the prior art, the level of skill for one of ordinary skill in the art, the amount of direction actually provided in the application and that already known in the art and the quantity of experimentation. At most, the Examiner superficially addresses three of the eight Wands factors: the breadth of the claims, the level of predictability in the art and working examples.

In the Final Office Action of April 21, 2004, the Examiner fails to provide any reasons or supporting evidence for his position that undue experimentation would be involved in determining if compounds are $5HT_3$ antagonist and if the compounds are useful in treating emesis. The Examiner's comments are not even directed to the specific invention being claimed and the specific technology at issue.

For the foregoing reasons, the Examiner has not established a *prima facie* case that the NK_1 antagonists are defined in the claims in a manner that is broader than the supporting disclosure.

Group 2 Claims

The Group 2 claims further define the $5HT_3$ antagonist as being one of a list of three compounds, which were known as being useful in the treatment of emesis prior to the present invention. The Examiner has not even attempted to explain why it is believed that the three named $5HT_3$ antagonists cannot be successfully used in a pharmaceutical composition to treat emesis. It is well known in the art that a pharmaceutical composition containing one of these compounds would certainly be useful in treating emesis.

Group 3 Claims

The claims of Group 3 do not further define the $5HT_3$ antagonist. Rather these claims further define the NK_1 receptor antagonist in terms of its chemical structure. Thus, with respect to Issue 3, these claims do not present a separate issue for consideration.

Issue 4 - $5HT_3$ Antagonists - Appellants have Rebutted the Rejection for Lack of Enablement

Even assuming that the Board finds that the Examiner has properly established a *prima facie* case of lack of enablement, Appellants submit that evidence of record overcomes the *prima facie* case. Appellants submit that one of ordinary skill in the art would not have to engage in undue experimentation to practice the claimed invention.

Group 1 Claims

The Wands Factors

1. Breadth of the Claims

The breadth of the claims of Group 1 is discussed above with respect to Issue 2.

2. Nature of the Invention

The nature of the invention for the claims of Group 1 is discussed above with respect to Issue 2. The novelty of the present invention lies in the combination of the NK_1 antagonist and the $5HT_3$ antagonist together in a pharmaceutical composition for treating emesis.

3. State of the Prior Art

The state of the prior art with respect to NK_1 antagonists is discussed above.

Assays for determining if a compound is a $5HT_3$ antagonist were known prior to the application priority date. Research on $5HT_3$ antagonists dates back to the 1970's when $5HT_3$ antagonists were commonly known as serotonin M antagonists. See Bradley et al., "Proposal for the Classification and Nomenclature of Functional Receptors for 5-Hydroxytryptamine", Neuropharmacology, Vol. 25, No. 6, 563-76 (1986). Bradley et al. discloses that serotonin M antagonists were renamed $5HT_3$ antagonists. Several articles were published in the 1970s describing methods for determining serotonin M antagonist ($5HT_3$ antagonist) activity. See J. Fozard et al., "Blockade of Neuronal Tryptamine Receptors by Metoclopramide", European Journal of Pharmacology, Vol. 49, 109-12 (1978); J. Fozard et al., "Blockade of Serotonin Receptors on Autonomic Neurons by (-) Cocaine and Some Related Compounds," European Journal of Pharmacology, Vol. 59, 195-210 (1979). Fozard (1979) discloses a guinea pig ileum assay for detecting serotonin antagonists. Fozard (1978) discloses a rabbit heart assay for detecting serotonin M ($5HT_3$)antagonists.

Functional assays, such as rat vagus nerve, rat superior cervical ganglion and guinea pig ileum assays, are used to identify $5HT_3$ antagonists. These methods are all described in A. Butler et al., "Pharmacological Properties of GR 38032F, a novel antagonist at 5-HT_3 receptors", British Journal of Pharmacology, Vol. 94(2), 397-412 (1988). Moreover, GB 2152049A, published July 31, 1985, discloses that assays for detecting compounds which exhibit serotonin M receptor antagonist activity are "standard tests." The "standard tests" are described from page 9, lines 4-49. Also, GB 2100259A, published December 22, 1982, discloses 5HT antagonists and a screening assay to determine if a compound is a 5HT antagonist, where the pA_2 value of

the compound can be tested. See p. 3, lines 17-24. This assay not only detects 5HT antagonists, but also determines the most potent compounds.

Ondansetron

Ondansetron, trade name ZOFRAN®, was well known at the time the present invention was made. Ondansetron was approved by the FDA by January 4, 1991 (before the earliest British application upon which the present application claims priority) as evidenced by the listing in the FDA's Orange Book (Ctr. for Drug Evaluation and Research, Food and Drug Admin., Electronic Orange Book (24th ed. Cum. Supp. 6 June 2004) at http://www.fda.gov/cder/ob/). The Physicians' Desk Reference (PDR) in the description relating to ZOFRAN®, draws a connection between treatment of emesis and $5HT_3$ antagonist activity. Physicians' Desk Reference 1069-71 (Vol. 46 1992). The compound Ondansetron is described in U.S. Patent 4,695,578.

Thus, prior to the present invention, it was well known that $5\text{-}HT_3$ receptor antagonists could be used to treat emesis. In view of this pre-existing knowledge in the art, it is not understood how the Examiner can maintain a rejection based on lack of enablement with respect to the inclusion of all $5HT_3$ receptor antagonists in the claims.

Dolasetron

Dolasetron is a $5HT_3$ antagonist that has been approved as an antinauseant and antiemetic (See PDR Electronic Library entry for ANZEMET®). The FDA Orange Book lists U.S. Patent 4,906,755 (the '755 patent) as covering this product. The '755 patent indicates that the $5HT_3$ antagonists are useful for treating cytotoxic drug-induced

vomiting (see Col. 6, lines 44-49). The patent also describes both *in vitro* and *in vivo* assays for determining if a compound is a $5HT_3$ receptor antagonist. See col. 6, lines 63 to col. 7, line 18.

Alosetron

The drug alosetron is described in U.S. Patent 5,360,800, filed August 7, 1991 (see Orange Book listing for alosetron). The drug is described in the patent as a $5HT_3$ receptor antagonist which is useful for treating nausea and vomiting. See, e.g., the Abstract and col. 4, lines 25-33 and lines 44-56.

Granisetron and Palonosetron

Several other $5HT_3$ antagonists have been developed and marketed for use in treating emesis, including granisetron and palonosetron (see the PDR and FDA Orange Book listings for both of these drugs). U.S. patents describing these compounds as $5HT_3$ antagonists were either published or filed before 1992. U.S. Patent 4,886,808 describes the chemical compound known as granisetron. The patent indicates that the compounds described therein are $5HT_3$ antagonists and can be used to prevent nausea and vomiting associated with cancer therapy (col. 9, lines 54-60). U.S. Patent 5,202,333 describes the compound known as palonosetron. The '333 patent indicates that the compounds are 5HT3 antagonists that can be used to treat emesis (Col. 1, lines 33-40, Col. 3, lines 19-25 and Col. 11, lines 4-35).

Use of the Compounds

Formulations, modes of administration and doses were also all known to those of ordinary skill in the art at the time the present invention was made. Both GB 2100259A and GB 2152049A disclose

formulations, administration and dose along with biological and/or clinical data on serotonin M antagonists. Also, U.S. Patent 4,695,578 discloses how to make, formulate and administer ondansetron, which is a $5HT_3$ antagonist.

Conclusion

The above discussion clearly demonstrates that the state of the relevant art relating to the use of $5HT_3$ antagonists to treat emesis was highly developed at the time of the present invention. At the time the present application was filed there was a plethora of information available to one of ordinary skill with respect to compounds having $5HT_3$ antagonistic activity. The relationship between $5HT_3$ antagonistic activity and treatment of emesis was well established. Given the advanced knowledge in the art at the time of filing, it is unnecessary for Appellants to repeat this body of knowledge in the instant patent application.

4. The relative skill of those in the art

The level of skill for practicing the present invention is discussed above with respect to Issue 2.

5. The predictability or unpredictability of the art

The Examiner states "[t]he pharmaceutical art is unpredictable" without offering any explanation as to why the specific pharmaceutical field to which the present invention is directed is unpredictable. (Final Rejection, page 3).

Some unpredictability is allowable. In Wands, the court recognized that the method for screening monoclonal antibodies was well known in 1980. 858 F.2d at 736, 8 USPQ2d at 1404. One could not

predict whether a particular antibody was suitable without first testing the antibody. Likewise, methods for screening for 5HT3 receptor antagonists were well known well before the earliest priority date of 1991. An animal model for determining if a compound is suitable for treating emesis was also known and is described in the specification. There is absolutely no unpredictability regarding dosing and modes of administration for $5HT_3$ antagonists. This point does not appear to be contested by the Examiner.

6. The amount of direction or guidance provided in the application

The specification discloses $5HT_3$ antagonists by name and function. The specification discloses that the combination of an NK_1 antagonist and a $5HT_3$ antagonist is useful in a method of treating a mammal suffering from or susceptible to emesis. The specification describes three different $5HT_3$ antagonists, namely ondansetron, granisetron and metoclopramide (see p. 22, line 8). As discussed above, these three compounds were already known in the art prior to the filing date of the present application to be useful for treating emesis. There is no need to describe additional compounds because such additional compounds were already known in the art and the nexus between $5HT_3$ antagonist activity and treatment of emesis was known.

7. The quantity of experimentation

No burdensome experimentation is needed to determine whether a compound is a $5HT_3$ antagonist. The references of record establish the types of testing that are necessary to screen compounds for activity. Such experiments are not unusual to the artisan of ordinary skill in the pharmaceutical arts.

Furthermore, such experimentation is expected in the art. Experimentation one expects to have to perform is not undue. See Ex parte Mark, 1989 Pat. App. LEXIS 12, 12 USPQ2d 1904 (Bd. Pat. App. & Int. 1989).

8. The presence or absence of working examples

There is no requirement to include working examples wherein $5HT_3$ antagonists are actually used with NK_1 antagonists since $5HT_3$ antagonists were already known to be effective in treating emesis.

Summary of the Wands Factors

The present invention is enabled by the specification. The level of skill in the art is high, the level of predictability is acceptable and the type of experimentation to determine if a compound is a $5HT_3$ antagonist and useful in treating emesis is routine.

The absence of a large number of "working examples" demonstrating that $5HT_3$ antagonists could be used to treat emesis is immaterial since this was already established in the prior art. Broad claims are enabled in light of what was already known in the art at the time of filing.

Group 2 Claims

The claims of Group 2 are limited to three known compounds having $5HT_3$ antagonist activity. These three known compounds are certainly enabled in view of what is disclosed in Appellant's specification together with the knowledge in the art at the time of filing.

Group 3 Claims

Since the claims of Group 3 do not further limit the $5HT_3$ antagonists, these claims are not argued separately with respect to Issue 4.

Issue 5 - Indefiniteness - The Term "NK_1 Antagonists" is Not Indefinite

35 U.S.C. § 112, second paragraph, requires that the specification contain claims "particularly pointing out and distinctly claiming the subject matter which the applicant regards as the invention". One of the purposes of this requirement is to "permit a potential competitor to determine whether or not he is infringing…." Morton Int'l Inc. v. Cardinal Chem. Co., 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir. 1993).

Group 1 Claims

The Examiner has not specifically pointed out why the claims are considered to be indefinite, but has only made the following naked assertion:

> Criteria defining that broad spectrum of medicaments that are useful as NK_1 antagonists, or $5HT_3$ antagonists are not set forth in the specification, thereby failing to provide information defining the instant inventions metes and bounds. By employing wholly functional language to define those compounds useful for practicing the claimed invention, Applicant's have failed to establish the metes and bounds for the envisioned invention. (Final Rejection, page 4).

The Examiner is wrong with respect to the NK_1 antagonists. As discussed above with respect to Issue 2 (see, "3. State of the Prior Art" and "6. The amount of direction or guidance provided in the application"), known techniques can be used to determine whether a compound is a NK_1 antagonist. The Examiner has provided no evidence or

reasons why these terms would not be understood by one of ordinary skill in the art. One skilled in the art would encounter no difficulty in determining whether or not a particular compound has NK_1 antagonist activity. The specification also describes how one can determine if a compound is suitable for treating emesis (see p. 37, under "Biological Data"). With respect to the appropriateness of using functional language, it is well established that functional language can be used to define a component of an invention. In this regard, reference is made to In re Watson, 517 F.2d 465, 186 USPQ 11 (CCPA 1975), where it was held that the language "an effective amount of a germicide" is sufficiently definite to meet the requirements of 35 USC § 112, second paragraph.

The Examiner further states:

> All compounds, existing, envisioned, or undiscovered, possessing the NK_1 antagonist, or a $5HT_3$ antagonist activity are encompassed by the claims herein presented. Absent limitations more clearly setting forth that subject matter envisioned, the instant claims fail to set forth identifiable metes and bounds to practice the instant invention. Thus, claims 1-25 are properly rejected under 35 USC 112, second paragraph. (Final Rejection, p.5).

The fact that many compounds may be encompassed by the term "NK_1 antagonist" is completely irrelevant to the analysis of compliance with 35 U.S.C. § 112, second paragraph. Pursuant to MPEP § 2173.04 and In re Miller, 441 F.2d 689, 169 USPQ 597 (CCPA 1971), breadth of claims is not to be equated with indefiniteness. Applicants have utilized a term that is both broad and definite at the same time. Because the scope of the claimed subject matter is clear, then the claims meet the requirements of 35 U.S.C. § 112, second paragraph.

Group 2 Claims

Since the claims of Group 2 do not further define the NK_1 antagonists, these claims will not be argued separately with respect to this issue.

Group 3 Claims

The claims of Group 3 identify the NK_1 antagonist compounds by chemical structure. The Examiner has not explained why such claims do not appropriately define the NK_1 antagonist.

Issue 6 - Indefiniteness - The Term "$5HT_3$ antagonists" is Not Indefinite

Group 1 Claims

As discussed above, techniques for determining whether a compound is a $5HT_3$ antagonist were well known prior to the filing date of the present application. The Examiner has not commented on this fact in the Final Rejection. The specification also describes how one can determine if a compound is suitable for treating emesis (see p. 37, under "Biological Data"). The Examiner has not explained why one skilled in the art would not understand what is meant by the term "$5HT_3$ antagonist." This was a term of art as of 1991, when ondansetron was approved. The PDR reference cited above is proof of that fact.

Group 2 Claims

The claims of Group 2 are limited to three $5HT_3$ antagonists. The definition of the $5HT_3$ antagonists used in these claims is certainly not indefinite.

Group 3 Claims

Since the claims of Group 3 do not further define the $5HT_3$ antagonists, these claims will not be argued separately with respect to Issue 6.

(IX) CONCLUSION

For the foregoing reasons, Appellants respectfully request that all of the rejections in the Final Office Action dated April 21, 2004, be reversed.

Pursuant to 37 C.F.R. § 1.17 and 1.136(a), Applicants respectfully petition for a one (1) month extension of time for filing a response in connection with the present application. The required fee of $110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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GMM:KJR/jao:kss:las:pjh
2801-0165P

Attachments:
List of Exhibits
Appendix: Claims on Appeal

LIST OF EXHIBITS

Exhibit No.	Description
1	PTO-850 for "proposed" Interference No. 104,387.
2	Email from Marianne Cintins to Examiner Kimberly Jordan dated June 26, 1999, with previous emails in the chain.

APPENDIX: CLAIMS ON APPEAL

1. (Original) A method for the treatment of a mammal, suffering from or susceptible to emesis, comprising administration of an effective amount of a tachykinin antagonist which is an NK_1 antagonist in combination with one or more other therapeutic agents selected from systemic anti-inflammatory corticosteroids or $5HT_3$ antagonists.

2. (Original) A method according to claim 1 wherein the systemic anti-inflammatory corticosteroid is methyl prednisolone or dexamethasone.

3. (Original) A method according to claim 1 wherein the $5HT_3$ antagonist is ondansetron, granisetron or metoclopramide.

4. (Original) A method according to claim 1 wherein said emesis is induced by cancer chemotherapeutic agents, radiation sickness, radiation therapy, poisons, toxins, pregnancy, vestibular disorders, post-operative sickness, gastrointestinal obstruction, reduced gastrointestinal motility, visceral pain, migraine, increased intercranial pressure, decreased intercranial pressure, or opioid analgesics.

5. (Original) A method according to claim 4 wherein said emesis is induced by a cancer chemotherapeutic agent.

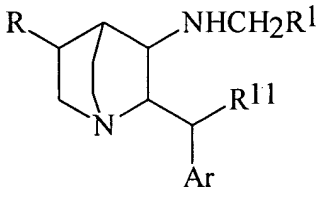
6. (Original) A method according to claim 5 wherein said cancer chemotherapeutic agent is selected from cyclophosphamide, carmustine, lomustine, chloroambucil, dactinomycin, doxorubicin, mitomycin-C, bleomycin, cytarabine, methotrexate, 5-fluorouracil, etoposide, vinblastine, vincristine, cisplatin, dacarbazine, procarbazine, hydroxyurea, and combinations thereof.

7. (Original) A method according to claim 6 wherein said emesis is induced by cisplatin.

8. (Original) A method according to claim 6 wherein said emesis is induced by cyclophosphamide.

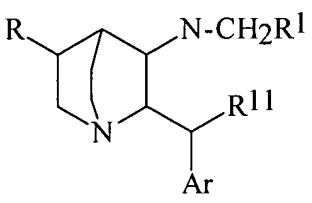
9. (Original) A method according to claim 1 wherein said emesis is induced by morphine, ipecacuanha or copper sulfate.

10. (Original) A method according to claim 1 wherein the NK_1 antagonist is a compound of formula:



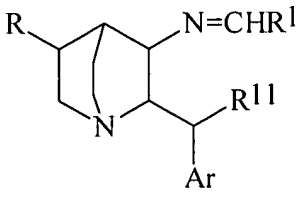
A

,



B

or



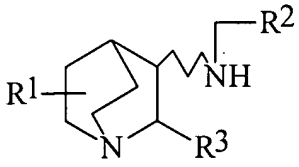
C

wherein

Ar is thienyl, phenyl, fluorophenyl, chlorophenyl or bromophenyl;

R is hydrogen or alkyl having one to four carbon atoms;

R^1 is cycloalkyl having from five to seven carbon atoms, norbornyl, pyrrolyl, 2,3-dihydrobenzofuranyl, thienyl, alkoxythienyl having from one to three carbon atoms in the alkoxy moiety, pyridyl, hydroxypyridyl, quinolinyl, indolyl, naphthyl, alkoxynaphthyl having from one to three carbon atoms in the alkoxy moiety, biphenyl 2,3-methylenedioxyphenyl, or phenyl optionally substituted with up to two substituents selected from cyano, nitro, amino, N-monoalkylamino having from one to three carbon atoms in the alkyl moiety, fluorine, chlorine, bromine, trifluoromethyl, alkyl having from one to three carbons, alkoxy having from one to three carbon atoms, allyloxy, hydroxy, carboxy, alkoxycarbonylbenzyloxy having from one to three carbon atoms in the alkoxy moiety, carboxamido or N,N-dialkylcarboxamido having from one to three carbon atoms in the alkyl moiety; and R^{11} is branched chain alkyl having from three to four carbon atoms, branched chain alkenyl having from five to six carbon atoms, cycloalkyl having from five to seven carbon atoms, furyl thienyl, pyridyl, indolyl, biphenyl, or phenyl optionally substituted with up to two substituents selected from fluorine, chlorine, bromine, trifluoromethyl, alkyl having from one to three carbon atoms, alkoxy having from one to three carbon atoms, carboxy, alkoxycarbonyl having from one to three carbon atoms in the alkoxy moiety or benzyloxycarbonyl, with the proviso that said R^{11} is always other than unsubstituted phenyl, fluorophenyl, chlorophenyl, bromophenyl or alkylphenyl when said R^1 is unsubstituted phenyl, pyrrolyl or thienyl and Ar is other than thienyl;

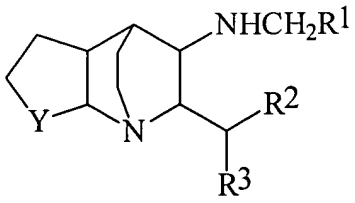


D

wherein R^1 is hydrogen or (C_1-C_6)alkyl;

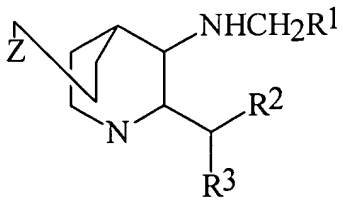
R^2 is phenyl, pyridyl, thienyl or furyl, and R^2 may optionally be substituted with from one to three substituents independently selected from (C_1-C_4)alkyl, (C_1-C_4)alkoxy, chloro, fluoro, bromo, iodo and trifluoromethyl;

R^3 is phenyl, naphthyl, pyridyl, thienyl or furyl, and R^3 may optionally be substituted with one to three substituents independently selected from (C_1-C_4)alkyl, (C_1-C_4)alkoxy, chloro, fluoro, bromo, iodo and trifluoromethyl;



E

or



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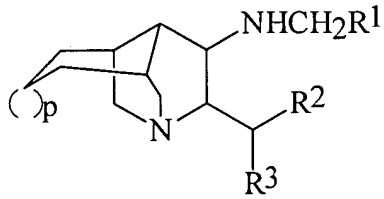
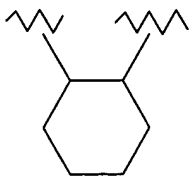


G

wherein

Y is $(CH_2)_m$ wherein m is an integer from one to three, or Y is a group of the formula



P is an integer from zero to one;

Z is oxygen, sulfur, amino, N-$(C_1$-$C_3)$alkylamino or $-(CH_2)_n-$ and n is zero, one or two;

Ar is thienyl, phenyl, fluorophenyl, chlorophenyl or bromophenyl;

R^1 is cycloalkyl having from five to seven carbon atoms, pyrrolyl, thienyl, pyridyl, phenyl or substituted phenyl, wherein said substituted phenyl is substituted with one to three substituents selected from fluorine, chlorine, bromine, trifluoromethyl, alkyl having from one to three carbon atoms, alkoxy having from one to three carbon atoms, carboxy, alkoxycarbonyl having from one to three carbons in the alkoxy moiety and benzyloxycarbonyl; and

R^2 is furyl, thienyl, pyridyl, indolyl, biphenyl, phenyl or substituted phenyl, wherein said substituted phenyl is substituted with one or two substituents selected from fluorine, chlorine, bromine, trifluoromethyl, alkyl having from one to three carbon atoms, alkoxy having from one to three carbon atoms, carboxy, alkoxycarbonyl having from one to three carbon atoms in the alkoxy moiety and benzyloxycarbonyl; or a pharmaceutically acceptable salt thereof.

11. (Original) A pharmaceutical composition for the treatment or prevention of emesis comprising a $5HT_3$ receptor-antagonist, an NK-1 receptor antagonist and a pharmaceutically acceptable carrier.

12. (Original) The pharmaceutical composition of claim 11, wherein the $5HT_3$ receptor antagonist is selected from the group consisting of ondansetron and granisetron.

13. (Original) The pharmaceutical composition of claim 11, wherein the NK-1 receptor antagonist is selected from the group consisting of cis-3-(2-methoxybenzyl)amino-2-phenylpiperidine, cis-3-[(2-methoxyphenyl)methylamino]-2-benzhydryl-quinuclidine, cis-3-[(2-methoxybenzyl)amino]-2-diphenylmethyl-1-azabicyclo[2.2.2]octane and (exo,exo)-2-diphenylmethyl)-N-[5-fluoro-2-methoxyphenyl)methyl]-1-azabicyclo[2.2.1] heptan-3-amine.

14. (Original) A method of treating or preventing emesis in a mammal, comprising administering to said mammal an anti-emetic effective amount of a pharmaceutical composition comprising a $5HT_3$ receptor antagonist, an NK-1 receptor antagonist and a pharmaceutically acceptable carrier.

15. (Original) The method of claim 14, wherein the $5HT_3$ receptor antagonist is selected from the group consisting of ondansetron and granisetron.

16. (Original) A method of treating or preventing emesis in a mammal, comprising administering to said mammal a $5HT_3$ receptor antagonist and an NK-1 receptor antagonist in amounts that render the combination of such two active agents effective in the treatment or prevention of such disorder.

17. (Original) The method of claim 14 or 15, wherein the NK-1 receptor antagonist is selected from the group consisting of cis-3-(2-methoxybenzyl)amino-2-phenylpiperidine, cis-3-[(2-methoxyphenyl)methylamino]-2-benzhydryl-quinuclidine, cis-3-[(2-methoxybenzyl)amino]-2-diphenylmethyl-1-azabicyclo[2.2.2]octane and (exo,exo)-2-diphenylmethyl)-N-[5-fluoro-2-methoxyphenyl)methyl]-1-azabicyclo[2.2.1] heptan-3-amine.

18. (Original) The method of claim 16, wherein the NK-1 receptor antagonist is selected from the group consisting of cis-3-(2-methoxybenzyl)amino-2-phenylpiperidine, cis-3-[(2-methoxyphenyl)methylamino]-2-benzhydryl-quinuclidine, cis-3-[(2-methoxybenzyl)amino]-2-diphenylmethyl-1-azabicyclo[2.2.2]octane and (exo,exo)-2-diphenylmethyl)-N-[5-fluoro-2-methoxyphenyl)methyl]-1-azabicyclo[2.2.1] heptan-3-amine.

19. (Original) The method of claim 16, wherein the $5HT_3$ receptor antagonist is selected from the group consisting of ondansetron and granisetron.

20. (Original) The method of claim 14, wherein the combination of the $5HT_3$ receptor antagonist and the NK-1 receptor is used to treat or prevent ondansetron-resistant emesis.

21. (Original) The method of claim 16, wherein the combination of the $5HT_3$ receptor antagonist and the NK-1 receptor is used to treat or prevent ondansetron-resistant emesis.

22. (Original) The method according to claim 14, wherein the NK-1 receptor antagonist is administered in an amount from about 0.1 to 400 mg per kg body weight of the subject being treated per day and the $5HT_3$ receptor antagonist is administered in an effective amount.

23. (Original) The method according to claim 14, wherein the composition is administered at a dose of 3 mg/kg.

24. (Original) The method according to claim 14, wherein the composition is administered at a dose of 5 mg/kg.

25. (Original) The method according to claim 14, wherein the $5HT_3$ receptor antagonist and the NK-1 receptor antagonist are administered separately according to a dosed regimen that renders the combination of the separately administered active agents effective in the treatment or prevention of emesis.

TO-850 (Rev. 9-27-95)

INTERFERENCE INITIAL MEMORANDUM

104387

BOARD OF PATENT APPEALS AND INTERFERENCES: An interference is found to exist between the following cases:

This interference involves 2 parties

PARTY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Gonsalves	08/353,049 ✓	12/9/94	5,576,317	11/19/96

If application has been patented, have maintenance fees been paid? ___Yes ___No X Maintenance fees not due yet

**Accorded the benefit of: COUNTRY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY

OIPE AUG 18 2004 PATENT & TRADEMARK OFFICE

EXHIBIT 1

The claim(s) of this party which correspond(s) to this count is(are):

PATENTABLE CLAIMS 1-14 | UNPATENTABLE CLAIMS none

The claim(s) of this party which does(do) not correspond to this count is(are):

PATENTABLE CLAIMS none | UNPATENTABLE CLAIMS none

PARTY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Hagan & Bunce	08/670,021 ✓	6/25/96		

If application has been patented, have maintenance fees been paid? ___Yes ___No ___Maintenance fees not due yet

**Accorded the benefit of: COUNTRY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
U.S.	08/214,306 ✓	3/17/94	5,547,964	8/20/96
Great Britain	9305718.0	3/19/93		

RECEIVED 1999 JUL 12 PM 2:54 BOARD OF PATENT APPEALS AND INTERFERENCES

The claim(s) of this party which correspond(s) to this count is(are):

PATENTABLE CLAIMS 30-33 | UNPATENTABLE CLAIMS none

The claim(s) of this party which does(do) not correspond to this count is(are):

PATENTABLE CLAIMS none | UNPATENTABLE CLAIMS none

Instructions

1. For every patent involved in the interference, check if the fees have been paid by using the **patent number** with the PALM screen CR06.
   If fees are due and they have not been paid, the interference cannot be declared since it would invovlve an expired patent. (35 USC 135(a); 37 CFR 1.606).
2. For each party, separately identify the patentable and unpatentable claims which correspond to the count. (37 CFR 1.601 (f), 1.601 (n), 1.609(b)(2)).
3. For each party, separately identify the patentable and unpatentable claims which do not correspond to the count (37 CFR 1.609(b)(3)).
4. Forward all files including those the benefit of which is being accorded.
5. Keep a copy of the Interference Initial Memorandum and any attachments for your records.

All information requested below must be attached on (a) separate sheet(s) and type-written.

6. On a separate sheet, set forth a single proposed interference count. If any claim of any party is exactly the same word for word as this count, please indicate the party, application or patent number, and the claim number.
7. For each claim designated as corresponding to the count, provide an explanation of why each claim defines the same patentable invention (37 CFR 1.609(b)(2)).
8. For each claim designated as not corresponding to the count, provide an explanation of why each claim defines a separate patentable invention (37 CFR 1.609(b)(3)).
9. For each additional count, if any, repeat steps 2-6 and, additionally, provide an explanation why each count represents a separate patentable invention from every other count (37 CFR 1.609(b)(1)).

DATE	PRIMARY EXAMINER (Signature)	TELEPHONE NO.	ART UNIT
3/4/99	[signature]	(703) 308-4611	1614
DATE 7/12/99	GROUP DIRECTOR SIGNATURE (if required) [signature]	(703) 308-0193	

**The serial number and filing date of each application the benefit of which is intended to be accorded must be listed. It is not sufficient to merely list the earliest application if there are intervening applications necessary for continuity.

THIS PAGE CAN BE DUPLICATED IF THERE ARE MORE THAN TWO INTERFERING PARTIES.

Page 1 of 3

O-850 (Rev. 9-27-95) INTERFERENCE INITIAL MEMORANDUM Count # 1

OARD OF PATENT APPEALS AND INTERFERENCES: An interference is found to exist between the following cases:

This interference involves 2 parties

ARTY -	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Gonsalves	08/353,049	12/9/94	5,576,317	11/19/96

application has been patented, have maintenance fees been paid? ___Yes ___No X Maintenance fees not due yet

*Accorded the benefit of: OUNTRY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY

OTPE AUG 18 2004 PATENT & TRADEMARK OFFICE

The claim(s) of this party which correspond(s) to this count is(are):
PATENTABLE CLAIMS 1-14 **UNPATENTABLE CLAIMS** none

The claim(s) of this party which does(do) not correspond to this count is(are):
PATENTABLE CLAIMS none **UNPATENTABLE CLAIMS** none

PARTY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Hagan & Bunce	08/706,836	9/3/96		

If application has been patented, have maintenance fees been paid? ___Yes ___No ___Maintenance fees not due yet

**Accorded the benefit of: COUNTRY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
U.S.	08/579,294	12/27/95	5,798,363	8/25/98
U.S.	08/269,079	6/30/94	5,538,982	7/23/96
U.S.	07/946,635	9/18/92	5,360,820	11/1/94
~~Great Britain~~	9120172.3	9/20/91	priority	continued on next page

The claim(s) of this party which correspond(s) to this count is(are):
PATENTABLE CLAIMS 29-32 **UNPATENTABLE CLAIMS** none

The claim(s) of this party which does(do) not correspond to this count is(are):
PATENTABLE CLAIMS none **UNPATENTABLE CLAIMS** none

RECEIVED 1999 JUL 12 PM 2:54 BOARD OF PATENT APPEALS AND INTERFERENCES

Instructions

1. For every patent involved in the interference, check if the fees have been paid by using the **patent number** with the PALM screen CR06.
If fees are due and they have not been paid, the interference cannot be declared since it would invovlve an expired patent. (35 USC 135(a); 37 CFR 1.606).
2. For each party, separately identify the patentable and unpatentable claims which correspond to the count. (37 CFR 1.601 (f), 1.601 (n), 1.609(b)(2)).
3. For each party, separately identify the patentable and unpatentable claims which do not correspond to the count (37 CFR 1.609(b)(3)).
4. Forward all files including those the benefit of which is being accorded.
5. Keep a copy of the Interference Initial Memorandum and any attachments for your records.

All information requested below must be attached on (a) separate sheet(s) and type-written.

6. On a separate sheet, set forth a single proposed interference count. If any claim of any party is exactly the same word for word as this count, please indicate the party, application or patent number, and the claim number.
7. For each claim designated as corresponding to the count, provide an explanation of why each claim defines the same patentable invention (37 CFR 1.609(b)(2)).
8. For each claim designated as not corresponding to the count, provide an explanation of why each claim defines a separate patentable invention (37 CFR 1.609(b)(3)).
9. For each additional count, if any, repeat steps 2-6 and, additionally, provide an explanation why each count represents a separate patentable invention from every other count (37 CFR 1.609(b)(1)).

DATE	PRIMARY EXAMINER (Signature)	TELEPHONE NO.	ART UNIT
3/4/99		(703) 308-4611	1614
DATE	GROUP DIRECTOR SIGNATURE (if required)		
7/12/99		(703) 308-0196	

**The serial number and filing date of each application the benefit of which is intended to be accorded must be listed. It is not sufficient to merely list the earliest application if there are intervening applications necessary for continuity.

THIS PAGE CAN BE DUPLICATED IF THERE ARE MORE THAN TWO INTERFERING PARTIES.

PTO-850-(Rev. 9-27-95)

INTERFERENCE INITIAL MEMORANDUM

Count # 1

BOARD OF PATENT APPEALS AND INTERFERENCES: An interference is found to exist between the following cases:

This interference involves _____ parties

PARTY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Gonsalves	08/353,049 ✓	12/9/94	5,576,317	11/19/96

If application has been patented, have maintenance fees been paid? ___Yes ___No ___Maintenance fees not due yet

**Accorded the benefit of: COUNTRY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY

The claim(s) of this party which correspond(s) to this count is(are):
PATENTABLE CLAIMS **UNPATENTABLE CLAIMS**

The claim(s) of this party which does(do) not correspond to this count is(are):
PATENTABLE CLAIMS **UNPATENTABLE CLAIMS**

PARTY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Hagan & Bunce	08/706,836 ✓	9/3/96		

If application has been patented, have maintenance fees been paid? ___Yes ___No ___Maintenance fees not due yet

**Accorded the benefit of: COUNTRY	SERIAL NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Great Britain	9208398	2/11/92		
Great Britain	9204151.6	2/27/92		

The claim(s) of this party which correspond(s) to this count is(are):
PATENTABLE CLAIMS **UNPATENTABLE CLAIMS**

The claim(s) of this party which does(do) not correspond to this count is(are):
PATENTABLE CLAIMS **UNPATENTABLE CLAIMS**

Instructions

1. For every patent involved in the interference, check if the fees have been paid by using the **patent number** with the PALM screen CR06.
   If fees are due and they have not been paid, the interference cannot be declared since it would invovlve an expired patent. (35 USC 135(a); 37 CFR 1.606).
2. For each party, separately identify the patentable and unpatentable claims which correspond to the count. (37 CFR 1.601 (f), 1.601 (n), 1.609(b)(2)).
3. For each party, separately identify the patentable and unpatentable claims which do not correspond to the count (37 CFR 1.609(b)(3)).
4. Forward all files including those the benefit of which is being accorded.
5. Keep a copy of the Interference Initial Memorandum and any attachments for your records.

All information requested below must be attached on (a) separate sheet(s) and type-written.

6. On a separate sheet, set forth a single proposed interference count. If any claim of any party is exactly the same word for word as this count, please indicate the party, application or patent number, and the claim number.
7. For each claim designated as corresponding to the count, provide an explanation of why each claim defines the same patentable invention (37 CFR 1.609(b)(2)).
8. For each claim designated as not corresponding to the count, provide an explanation of why each claim defines a separate patentable invention (37 CFR 1.609(b)(3)).
9. For each additional count, if any, repeat steps 2-6 and, additionally, provide an explanation why each count represents a separate patentable invention from every other count (37 CFR 1.609(b)(1)).

DATE	PRIMARY EXAMINER (Signature)	TELEPHONE NO.	ART UNIT
3/4/99		(703) 308-4611	1614
DATE	GROUP DIRECTOR SIGNATURE (If required)		
7/12/99		(703) 308-0193	

** The serial number and filing date of each application the benefit of which is intended to be accorded must be listed. It is not sufficient to merely list the earliest application if there are intervening applications necessary for continuity.

THIS PAGE CAN BE DUPLICATED IF THERE ARE MORE THAN TWO INTERFERING PARTIES.

Proposed Interference Count

A pharmaceutical composition for the treatment or prevention of emesis comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier

or

A method of treating or preventing emesis in a mammal, comprising administering to said mammal an anti-emetic effective amount of a pharmaceutical composition comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier.

(Support for the use of alternative language, i.e., "or," in a count may be found in *Orikasa v. Oonishi*, 10 USPQ2d 1996 (ComrPats 1989)).

Correspondence of Claims to the Count

Correspondence between proposed count and the claims of the '317 patent

Claims 1 and 4 of Patent No. 5,576,317 to Gonsalves correspond exactly to the proposed interference count.

Claims 2 and 3 of the patent are directed to the same patentable invention as the count and correspond substantially to the count. Each of these claims are dependent upon claim 1 which forms part of the count and define a further subgenus of either the $5HT_3$ receptor antagonist or

the NK_1 receptor antagonist, which is prima facie obvious over the count.

Claim 5 is dependent upon claim 4 which forms part of the count and is to the same patentable invention as the count and is used to treat a specific type of emesis. Claim 5 is thus prima facie obvious over the count.

Claim 6 is to the same patentable invention as the count and specifies a subgenus of $5HT_3$ receptor antagonists. No unexpected results for the subgenus have been demonstrated on the record. The claim is therefore obvious over the count.

Claim 7 corresponds substantially to the count and is to the same patentable invention as the count. Claim 7 specifies that the NK_1 receptor antagonist and $5HT_3$ receptor antagonist are administered in amounts that render the combination of the two active agents effective--that is, in an effective amount for the combination as set forth in the count.

Claim 8 specifies a subgenus of NK_1 receptor antagonists by identifying specific compounds which are prima facie obvious over the genus of the count by being of the same genus. No unexpected results for the subgenus have been demonstrated on the record.

Patent claims 9, 10 and 11 are all dependent upon claim 7 and further limit claim 7 by defining certain specific aspects of the claimed invention. Claim 9 is directed to a particular type of emesis to be treated; claim 10 specifies a specific dosage amount; and claim 11 identifies specific $5HT_3$ antagonists, all of which are obvious variations and are prima facie obvious over the count. It is well within the skill of one of ordinary skill in the art to make the necessary selections to arrive at these amounts. Again, there are no unexpected results of record with respect to these selections, which are prima facie obvious.

Claim 12 is dependent on claim 7, which corresponds to the count and is to the same

patentable invention as the count. The antagonists are administered separately to provide an effective amount of the combination of NK_1 and $5HT_3$ antagonists as provided for by the count.

Claim 13 is dependent upon claim 12 and is to the same patentable invention as the count. It is directed to the treatment of a specific type of emesis which is the subject of the count. It is prima facie obvious over the count of the interference.

Claim 14 is to a method of treating or preventing emesis and is the same as claim 4, which is part of the count, except that claim 14 includes a specific list of the NK_1 receptor antagonists. These compounds are clearly identified as NK_1 receptor antagonists and therefore claim 14 is to the same patentable invention as the count of the interference. There is no evidence of record which suggests that the use of any of these compounds is not prima facie obvious over the count.

There are no claims of the involved Gonsalves '317 patent that are outside the count.

Correspondence between proposed count and the claims of the '021 application

Claims 30-33 of the Hagan et al. '021 application correspond substantially to the count. For example, claims 1 and 4 of the '317 patent, which forms part of the count, claim a composition and method of treating or preventing emesis in a mammal, comprising administering to said mammal an anti-emetic effective amount of a pharmaceutical composition comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier. Claims 30 and 31 of the '021 application claim exactly the same composition and method, but are more limited in that they specify the specific $5HT_3$ receptor antagonist as ondansetron and the specific NK_1 receptor antagonist as (2S, 3S)-2-phenyl-3-(2-trifluoromethoxybenzyl)-aminopiperidine.

Claims 32 and 33 of the '021 application claim a composition and method which is intermediate in scope between patent claims 1 and 4 and claims 30 and 31 of the '021 application. Claims 32 and 33 specify a subgenus of NK_1 receptor antagonists and $5HT_3$ receptor antagonists which are prima facie obvious over the genus of the count by being of the same genus. No unexpected results for the subgenus have been demonstrated on the record. The claims are therefore obvious over the count.

Correspondence between proposed count and the claims of the '836 application

Claims 29-30 of the '836 application claim exactly the same composition and method as claims 1 and 4 of the patent, but are more limited in that they specify the specific $5HT_3$ receptor antagonist as ondansetron and the specific NK_1 receptor antagonist as cis-3-(2-methoxybenzylamino)-2-phenyl piperidine.

Claims 31 and 32 of the '836 application specify a subgenus of NK_1 receptor antagonists and $5HT_3$ receptor antagonists which are prima facie obvious over the genus of the count by being of the same genus. No unexpected results for the subgenus have been demonstrated on the record. The claims are therefore obvious over the count.

There are no claims of either Hagan et al. application ('021 or '836) that are outside the count.

Proposed Interference Count

A pharmaceutical composition for the treatment or prevention of emesis comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier.

or

A method of treating or preventing emesis in a mammal, comprising administering to said mammal an anti-emetic effective amount of a pharmaceutical composition comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier.

(Support for the use of alternative language, i.e., "or," in a count may be found in *Orikasa v. Oonishi*, 10 USPQ2d 1996 (ComrPats 1989)).

Correspondence of Claims to the Count

Correspondence between proposed count and the claims of the '317 patent

Claims 1 and 4 of Patent No. 5,576,317 to Gonsalves correspond exactly to the proposed interference count.

Claims 2 and 3 of the patent are directed to the same patentable invention as the count and correspond substantially to the count. Each of these claims are dependent upon claim 1 which forms part of the count and define a further subgenus of either the $5HT_3$ receptor antagonist or

the NK_1 receptor antagonist, which is prima facie obvious over the count.

Claim 5 is dependent upon claim 4 which forms part of the count and is to the same patentable invention as the count and is used to treat a specific type of emesis. Claim 5 is thus prima facie obvious over the count.

Claim 6 is to the same patentable invention as the count and specifies a subgenus of $5HT_3$ receptor antagonists. No unexpected results for the subgenus have been demonstrated on the record. The claim is therefore obvious over the count.

Claim 7 corresponds substantially to the count and is to the same patentable invention as the count. Claim 7 specifies that the NK_1 receptor antagonist and $5HT_3$ receptor antagonist are administered in amounts that render the combination of the two active agents effective--that is, in an effective amount for the combination as set forth in the count.

Claim 8 specifies a subgenus of NK_1 receptor antagonists by identifying specific compounds which are prima facie obvious over the genus of the count by being of the same genus. No unexpected results for the subgenus have been demonstrated on the record.

Patent claims 9, 10 and 11 are all dependent upon claim 7 and further limit claim 7 by defining certain specific aspects of the claimed invention. Claim 9 is directed to a particular type of emesis to be treated; claim 10 specifies a specific dosage amount; and claim 11 identifies specific $5HT_3$ antagonists, all of which are obvious variations and are prima facie obvious over the count. It is well within the skill of one of ordinary skill in the art to make the necessary selections to arrive at these amounts. Again, there are no unexpected results of record with respect to these selections, which are prima facie obvious.

Claim 12 is dependent on claim 7, which corresponds to the count and is to the same

patentable invention as the count. The antagonists are administered separately to provide an effective amount of the combination of NK_1 and $5HT_3$ antagonists as provided for by the count.

Claim 13 is dependent upon claim 12 and is to the same patentable invention as the count. It is directed to the treatment of a specific type of emesis which is the subject of the count. It is prima facie obvious over the count of the interference.

Claim 14 is to a method of treating or preventing emesis and is the same as claim 4, which is part of the count, except that claim 14 includes a specific list of the NK_1 receptor antagonists. These compounds are clearly identified as NK_1 receptor antagonists and therefore claim 14 is to the same patentable invention as the count of the interference. There is no evidence of record which suggests that the use of any of these compounds is not prima facie obvious over the count.

There are no claims of the involved Gonsalves '317 patent that are outside the count.

Correspondence between proposed count and the claims of the '021 application

Claims 30-33 of the Hagan et al. '021 application correspond substantially to the count. For example, claims 1 and 4 of the '317 patent, which forms part of the count, claim a composition and method of treating or preventing emesis in a mammal, comprising administering to said mammal an anti-emetic effective amount of a pharmaceutical composition comprising a $5HT_3$ receptor antagonist, an NK_1 receptor antagonist and a pharmaceutically acceptable carrier. Claims 30 and 31 of the '021 application claim exactly the same composition and method, but are more limited in that they specify the specific $5HT_3$ receptor antagonist as ondansetron and the specific NK_1 receptor antagonist as (2S, 3S)-2-phenyl-3-(2-trifluoromethoxybenzyl)-aminopiperidine.

Claims 32 and 33 of the '021 application claim a composition and method which is intermediate in scope between patent claims 1 and 4 and claims 30 and 31 of the '021 application. Claims 32 and 33 specify a subgenus of NK_1 receptor antagonists and $5HT_3$ receptor antagonists which are prima facie obvious over the genus of the count by being of the same genus. No unexpected results for the subgenus have been demonstrated on the record. The claims are therefore obvious over the count.

Correspondence between proposed count and the claims of the '836 application

Claims 29-30 of the '836 application claim exactly the same composition and method as claims 1 and 4 of the patent, but are more limited in that they specify the specific $5HT_3$ receptor antagonist as ondansetron and the specific NK_1 receptor antagonist as cis-3-(2-methoxybenzylamino)-2-phenyl piperidine.

Claims 31 and 32 of the '836 application specify a subgenus of NK_1 receptor antagonists and $5HT_3$ receptor antagonists which are prima facie obvious over the genus of the count by being of the same genus. No unexpected results for the subgenus have been demonstrated on the record. The claims are therefore obvious over the count.

There are no claims of either Hagan et al. application ('021 or '836) that are outside the count.

Jordan, Kimberly

From: Cintins, Marianne
Sent: Monday, July 26, 1999 9:49 AM
To: Jordan, Kimberly
Subject: FW: 104,387;104,388-Notice Regarding Proposed Interferences (missing parts report)

—Original Message—
From: Kittle, John
Sent: Wednesday, July 21, 1999 8:55 PM
To: Cintins, Marianne
Subject: FW: 104,387;104,388-Notice Regarding Proposed Interferences (missing parts report)

—Original Message—
From: Gardner, Sally
Sent: Wednesday, July 21, 1999 3:34 PM
To: Kittle, John; Doll, John
Cc: Stoner, Bruce; Harkcom, Gary; Torczon, Richard; Schafer, Richard; Lee, Jameson; Medley, Sally; Smith, Jeffrey T.; Santiago, Amalia
Subject: 104,387;104,388-Notice Regarding Proposed Interferences (missing parts report)

NOTICE REGARDING PROPOSED INTERFERENCES

Interference Nos.: 104,387; 104,388
104,387:
Appl. No.: 08/670,021
Appl. No.: 08/706,836
Patent No.: 5,576,317
104,388:
Appl. No.: 08/529,891 -CF 5/3/01 ok
Patent No.: 5,360,820
Patent No.: 5,538,982
Patent No.: 5,547,964
Patent No.: 5,798,363
Form PTO 850 Date: 12 July 1999
Received at Board: 12 July 1999
Examiner: Kimberly Jordan
Art Unit: 1614

A. Introduction
On 12 July 1999, the Board of Patent Appeals and Interferences (BPAI) received a second submission from Examiner Jordan proposing the declaration of interferences under 35 U.S.C. 135(a) between the above identified applications and patents. The submission has been reviewed; however, it has been determined that the declaration of these interferences is not appropriate at this time for reasons 1-3 stated below. The submission, including all papers and files, is being returned via the PTO Mail Room to the Technology Center.

1. Interference-in-fact: For an interference in fact to exist, each application and each patent involved in the interference must have at least one claim designated as corresponding to a count and all of the claims designated as corresponding to a given count must define the same patentable invention. 37 CFR 1.609 (j). "Same patentable invention" is defined at 37 CFR 1.601(n) . In the instant situation, it is unclear that an interference-in-fact exists between the applications and patents of either the 104,387 or the 104,388 potential interference.

In the 104,387 potential int[illegible]ence the count is drawn to the genu[illegible]he 5,576,317 patent (Gonsalves) contains claims to the genus (e.g. claims 1 and 4) of $5HT_3$ receptor antagonists and NK_1 receptor antagonists, and claims to species thereof, while the applications (Hagan et al.) only contain claims to specific species within the genus. While a species anticipates its genus, a genus does not necessarily anticipate or render obvious one of its species. There is no explanation of why the species of the applications (Hagan et al.) would have been anticipated by or obvious in view of the count.

In the 104,388 potential interference, a similar situations exists. The count is drawn to the genus. The 5,538,982 patent (Hagan et al.) contains a genus claim (claim 1) and species claims. The other patents (also to Hagan et al.) and application (to Watson) only claim species of the genus of NK_1 receptor antagonists. There is no explanation of why the species of the other patents and application claims would be anticipated by or obvious in view of the count.

2. Claim Correspondence: The statement under 37 CFR 1.609(b)(2) requires a statement explaining why each claim designated as corresponding to the count is either anticipated by or obvious in view of count. The explanation provided is incomplete because it does not fully explain why the species claims designated as corresponding to the count are obvious in view of the count. Inadequate support is provided for the statements that the claims are prima facie obvious over the count. Without further explanation, the fact that unexpected results were not demonstrated for a species is inadequate support for a finding of obviousness over the genus.

3. Benefit: The statement under 37 CFR 1.609(b)(4) requires an indication as to whether the parties will be allowed benefit of the filing date of earlier applications. An applicant is entitled to benefit for the purpose of priority (i.e. for the purpose of declaring an interference) if the benefit application (U.S. or foreign) describes an enabling embodiment within the scope of the count. See Den Beste v. Martin, 252 F.2d 302, 116 USPQ 584 (CCPA 1958). In potential interference 104,387, Hagan et al. in 08/706,836 claim benefit of GB 91 20172.3 filed 20 September 1991. There is no explanation of why benefit to this application was not accorded. A similar situation exists in potential interference 104,388 where Hagan et al. claim benefit to the same GB application in 5,360,820, 5,538,982 and 5,798,363, but benefit was not accorded.

B. Resubmission
The submission may be amended based on the above comments and returned to the BPAI for reconsideration. Each Technology center has at least one Interference Practice Specialist. It is the understanding of the BPAI that the Interference Practice Specialists for Technology Center 1600 are Michael Woodward and Anthony Caputa. An Interference Practice Specialist should be consulted before resubmission. A proposed interference must be countersigned by an Interference Practice Specialist of a Director of the Examiner's Technology Center.

C. Letters to the Parties
The attached letters have been mailed to the potential parties notifying them that the applications have been returned to the Technology center. The more detailed information as discussed below have not been included in the letters to the parties.

Please direct any questions or comments regarding this notice through an Interference Practice Specialist to:

Sally Gardner-Lane
Program and Resource Administrator
Interference Trial Section
Board of Patent Appeals and Interferences
Crystal Gateway II, 10C10
308-9797


APP021.WPD


APP836.WPD


PAT317.WPD


APP891.WPD


PAT820.WPD


PAT882.WPD

PAT964.WPD

PAT363.WPD